

REMARKS

Claims 1 and 4-11 are pending.

Claims 1, 4-8 and 10-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi et al (US 6, 472, 019 B1) in view of Di Giaimo (US 3, 496, 134).

Claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamaguchi et al in view of Di Giaimo and further in view of Snyder (US 3,617,188).

Applicants respectfully traverse the above rejections.

First of all, Applicants respectfully request the Examiner to reconsider the test data presented in the 37 C.F.R. §1.132 Declaration of Enomoto submitted on October 31, 2008, which test data demonstrates that the combination of an epoxy compound and at least one weakly basic compound as an HCl trapping compound provides superior properties.

The Examiner directed her comments to those dispersions containing the same chloride containing monomer in similar amounts in both the Inventive and Comparative Examples, and presented data taken from the Declaration said to meet these criteria in the following Table:

| Component | IE 1 | IE 2 | IE 5 | IE 6 | IE 8 | CE 4 | CE 5 | CE 6 | CE 7 |
|---|-------|-------|-------|-------|-------|-------|-------|--------|--------|
| FA | 150 g | 150 g | 150 g | 150 g | 150 g | 150 g | 150 g | 150 g | 150 g |
| Vinyl chloride | 40 g | 40 g | 40 g | 40 g | 40 g | 40 g | 40 g | 40 g | 40 g |
| Non-ionic emulsifier | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Epoxidized soybean oil | 10 g | 10 g | 10 g | 10 g | 10 g | 10 g | 10 g | 10.7 g | 0 g |
| Sodium hydrogen carbonate / Sodium Carbonate | 0.7 g | 0.7 g | 1.5 g | 0.7 g | 0.9 g | 0.7 g | 0.7 g | 0 g | 10.7 g |
| H ₂ O repellency (Initial) | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 4 |
| Oil repellency (Initial) | 5 | 4 | 4 | 4 | 3 | 5 | 5 | 5 | 3 |
| H ₂ O repellency (1 month at 50°C) | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 |
| Oil repellency (1 month at 50°C) | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 |
| Storage stability | Good | Good | Good | Good | Good | Good | Good | Good | Good |
| Mechanical stability | Good | Good | Good | Good | Good | Fair | Fair | Fair | Good |
| Chemical Stability | Good | Good | Good | Good | Fair | Fair | Fair | Fair | Poor |
| Yellowing | Good | Good | Good | Good | Good | Good | Good | Good | Good |

The Examiner pointed out that Comparative Examples 4-6 exhibited similar storage stability, chemical stability, yellowing, water and oil repellency after one month at 50°C; better initial oil and water repellency; while exhibiting only a slightly poor mechanical stability. Thus, the Examiner asserts, it is clear from the data submitted that Comparative Examples 4-6 exhibit superior properties on more counts than at least the Inventive Example 8. The Examiner then concluded that Applicants' position that use of a combination of epoxy compound and at least one weakly basic compound provides superior properties is without merit. Applicants respectfully disagree.

As an initial matter, the Table prepared by the Examiner as shown above has a serious error. Specifically, the Examiner mistakenly asserted that the Mechanical stability for comparative example CE7 is "Good", which in fact should be "Poor" as reported in Mr. Enomoto's Declaration.

In this regard, the properties after the passage of time are technically important. That is, mechanical stability, chemical stability, H₂O repellency and oil repellency after 1 month at 50°C are important parameters.

The Table prepared by the Examiner demonstrates that the Examples according to the present invention (IE1, IE2, IE5, IE6 and IE8) have much better mechanical stability and chemical stability than the Comparative Examples outside the scope of the present invention (CE4, CE5, CE6 and CE7). In addition, IE1, IE2, IE5 and IE6 exhibited much better H₂O repellency and oil repellency after 1 month at 50°C than CE4, CE5, CE6 and CE7.

Secondly, the Examiner considered that the test data is not commensurate in scope with the invention as claimed. Applicants respectfully disagree.

Namely, Inventive Examples 1-10 and the test results as set forth in Table 1 at page 9 of Mr. Enomoto's Declaration are representative of the scope of present claim 1.

The Declaration uses (i) one chlorine-containing polymerizable compound, (ii) one polymerizable compound having a perfluoroalkyl or perfluoroalkenyl group, and (iii) one methacrylate group-containing monomer (one optional another copolymerizable compound).

Applicants believe that the Declaration should use one compound for each of the three polymerizable monomers. This is because the test data in the Declaration should indicate whether or not a change in the data is dependent on a combination of (a) the epoxidized vegetable oil and/or the epoxidized fatty acid ester with (b) the weakly basic compound. Namely, there should be no variation of the three polymerizable monomers in the Declaration in order to make meaningful comparisons.

The Examples of the present specification employ the following compounds for each of the monomers (i), (ii) and (iii):

Monomer (i)

Vinyl chloride (Example 1)
Vinylidene chloride (Example 3)
Stearyl α -chloroacrylate (Example 4)
 $C_4F_9CH_2CH_2OCOCCl=CH_2$ (Example 9)
 $C_2F_5CH_2CH_2OCOCCl=CH_2$ (Example 10)

Monomer (ii)

$C_nF_{2n+1}CH_2CH_2OCOCH=CH_2$
(a mixture of compounds wherein n is 6, 8, 10, 12 and 14 (average of n: 8)) (FA)
(Example 1)
 $C_4F_9CH_2CH_2OCOCH=CH_2$ (Example 8)
 $C_4F_9CH_2CH_2OCOCCl=CH_2$ (Example 9)
 $C_2F_5CH_2CH_2OCOCCl=CH_2$ (Example 10)

Monomer (iii)

Stearyl acrylate (Example 1)
N-methylolacrylamide (Example 1)

The Examples in the specification employ various (four or five) monomers (i) and (ii). Since the monomer (iii) is optional, two compounds are sufficient. Further, Applicants believe that variation of the monomers (i), (ii) and (iii) is sufficient, because a key feature of the claimed subject matter does not reside in the monomers (i), (ii) and (iii). The key feature of the claimed subject matter resides in the combination of (a) the epoxidized vegetable and/or the epoxidized fatty acid ester with (b) the weakly basic compound.

For the above reasons, it is respectfully submitted that (1) the Rule 132 Declaration by Mr. Enomoto submitted on October 31, 2008 demonstrates that the use of a combination of epoxy compound and at least one weakly basic compound as an HCl trapping compound provides superior properties; and (2) the Inventive Examples 1-10 and the test results as set forth in Table 1 at page 9 of the Declaration are representative of the scope of the present claims.

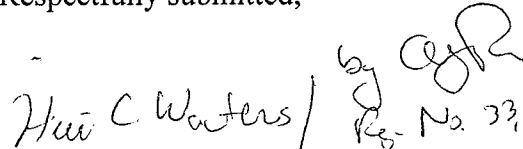
Accordingly, the present invention is not obvious over Yamaguchi et al in view of Di Giaimo, and withdrawal of the foregoing § 103(a) rejection is respectfully requested.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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Date: March 23, 2009